## Guangliang Liu, Ph. D.

Assistant Director, Research Programs and Services Department of Chemistry & Biochemistry Florida International University 11200 SW 8th Street, Miami, FL 33199

Phone: (305) 348-6235; Fax: (305) 348-3772 E-mail: <u>liug@fiu.edu</u>

#### **EDUCATION**

Ph.D., major in Environmental Chemistry, July 2000
College of Environmental Science and Engineering, Nankai University, Tianjin, China
B.S., major in Environmental Chemistry, July 1995
Department of Environmental Sciences, Nankai University, Tianjin, China

#### PROFESSIONAL APPOINTMENTS and EXPERIENCES

#### 2008 – present

#### Assistant Director, Research Programs and Services

Department of Chemistry & Biochemistry, Florida International University **Research:** Analytical chemistry, environmental chemistry, and geochemistry of biomedically important contaminants, including toxic metals and metalloids and natural products; Synoptic analysis of environmental data and implications on environmental monitoring, remediation, management, and policy.

**Service:** Assisting PI in instructing postdocs and graduate students on research in the broad area of analytical chemistry, environmental chemistry, and geochemistry; Instructing undergraduate students to perform independent research projects; Supervising and coordinating development and operation of Bioinorganic & Environmental Analytical Facility (BEAF) at FIU.

Teaching: Undergraduate-level course "Instrumental Analysis" (Co-lecturer)

### 2004 - 2008

### **Postdoctoral Research Associate**

Department of Chemistry & Biochemistry and Southeast Environmental Research Center (SERC), Florida International University

**Research:** Analytical chemistry of important species of metals in the environment; Geochemical processes governing the speciation, fate, transformation, and cycling of inorganic contaminants (e.g., toxic metals) in natural environments and contaminated sites undergoing remediation.

**Service:** Assisting PI in instructing graduate/undergraduate students to perform research projects; Developing laboratory protocols for environmental analysis of metals; Supervising and managing operation of SERC Mercury Laboratory.

### 2002 - 2004

#### **Associate Professor**

College of Environmental Sciences & Engineering, Nankai University, China **Research:** Environmental analysis and fate of organic pollutants, including pesticides and algal toxins; Interactions between ecological change and environmental pollution.

**Service:** Serving as member of graduate student advisory committee; Mentoring graduates and undergraduates to conduct environmental studies and to write thesis. **Teaching:** Graduate-level courses "*Advances in Environmental Studies*" and

"Professional English for Environmental Sciences"

## 2000 - 2002

### Lecturer

College of Environmental Sciences & Engineering, Nankai University, China **Research:** Environmental fate, health risks, and monitoring of metals and pesticides **Service:** Mentoring undergraduates on environmental study project **Teaching:** Undergraduate-level courses *"Environmental Monitoring"* (Lecture and Laboratory) and *"Environmental Statistics"* 

1995 – 2000

## **Research/Teaching Assistant**

College of Environmental Sciences & Engineering, Nankai University, China **Research:** Analytical and environmental chemistry of pesticides in soils and waters **Teaching:** Undergraduate-level courses "*Environmental Monitoring (Laboratory)*" and "*Environmental Chemistry (Laboratory)*"

### PROFESSIONAL SERVICES and MEMBERSHIPS

- Reviewer, Environmental Science and Technology
  - Critical Reviews in Environmental Science and Technology Talanta
  - Environmental Pollution
  - Applied Geochemistry
  - Chemosphere
  - Science of the Total Environment
  - Colloids and Surfaces A: Physicochemical and Engineering Aspects
  - Food Additives & Contaminants
  - Water, Air, & Soil Pollution
  - American Chemical Society Symposium Series
  - Book Proposals Submitted to John Wiley & Sons, Inc.
  - Journal of Agro-Environment Science (in Chinese)
- Co-chair, Special Session "Biogeochemistry of Mercury" at the 30th SETAC North America Annual Meeting. New Orleans, LA, November 19-23, 2009. Special Session "Transformation and Fate of Mercury in the Environment" at the 29th SETAC North America Annual Meeting. Tampa, FL, November 11-16, 2008.
- Member, American Chemical Society (ACS) Society of Environmental Toxicology and Chemistry (SETAC) American Geophysical Union (AGU)

### **HONORS and AWARDS**

- Second-class Graduate Scholarship, Nankai University, China, 1999, 1998, 1997
- First-class Graduate Scholarship, Nankai University, China, 1996

- First-class Undergraduate Scholarship, Nankai University, China, 1994, 1993, 1992
- All-round Developed Student, Nankai University, China, 1994, 1993, 1992

## **PUBLICATIONS**

## <u>Books</u>

1. Guangliang Liu, Yong Cai, Nelson O'driscoll. (Editors.) *Environmental Chemistry and Toxicology of Mercury*, John Wiley & Sons, Inc. pp. 1-574, 2012.

## **Book Chapters**

- Liu, G., Cai, Y., Tachiev, G., Lagos, L. 2015. Mercury Mass Budget Estimates and Cycling in the Florida Everglades. in: Entry, J.A., Gottlieb, A.D., Jayachandrahan, K., Ogram, A. (Eds.). Microbiology of the Everglades Ecosystem. CRC Press, pp. 68-88.
- 2. Cai, Y., Liu, G., 2015. Atomic Fluorescence in Environmental Analysis. Encyclopedia of Analytical Chemistry. John Wiley & Sons, Ltd, pp. 1-24.
- Guangliang Liu, Yong Cai, Nelson O'driscoll, Xinbin Feng, Guibin Jiang. 2012. Overview of Mercury Sources in the Environment. *In* Guangliang Liu, Yong Cai, Nelson O'driscoll, (Eds.) *Environmental Chemistry and Toxicology of Mercury*, John Wiley & Sons, Inc. pp. 1-12.
- 4. Liu, G., Li, Y., Cai, Y. 2012. Adsorption of Mercury on Solids in the Aquatic Environment. *In* Guangliang Liu, Yong Cai, Nelson O'driscoll, (Eds.) *Environmental Chemistry and Toxicology of Mercury*, John Wiley & Sons, Inc. pp. 367-368.
- 5. Li, Y., Yin, Y., Liu, G., Cai, Y. 2012. Advances in Speciation Analysis of Mercury in the Environment. in: Liu, G., Cai, Y., O'driscoll, N. (Eds.). *Environmental Chemistry and Toxicology of Mercury*. John Wiley & Sons, pp. 13-58.
- Yong Cai, Guangliang Liu, Lucy Yehiayan. (2011). Biogeochemistry of Arsenic and Mercury: From Environmental Chemistry to Environmental Health. *In* Chunxia Wang, Guibin Jiang, Lizhong Zhu. (Eds.) *Frontiers and Perspectives in Environmental Chemistry*. Science Press, Beijing, China, pp. 461-485.
- Guangliang Liu, Yong Cai. (2007). Arsenic speciation in soil: an analytical challenge for understanding arsenic biogeochemistry. *In* Sarkar, D., Hannigan, R., Datta, R. (Eds.). *Developments in Environmental Sciences, Vol. 5: Concepts and Applications in Environmental Geochemistry*. Elsevier, pp. 687-711.
- 8. Yong Cai, Weihua Zhang, Guangliang Liu. (2005). Metals and Organometallics: GC for Speciation Analysis. *In* Jack Cazes (Ed.). *Encyclopedia of Chromatography*. Marcel Dekker.
- 9. Yong Cai and Guangliang Liu. (2005). Biogeochemistry of arsenic and mercury. *In* Shugui Dai (Ed.). *Advancement in Environmental Chemistry*. Chemical Industrial Press, Beijing, China.
- Dai Shugui and Liu Guangliang. (2001). Measures to Control Eutrophication in China Based on the International Research Experience on Restoration of Eutrophic Lakes. *In* China Environmental Protection Agency (Ed.) *Lake Eutrophication and Its Controlling Measures in China*, Chinese Environmental Science Press, Beijing, China, pp. 268.
- 11. Lin Zhang, Shugui Dai, Tan Zhu, and Guangliang Liu. (1996). Characterization of PAHs

Pollution in Indoor Air. *In* Bingzheng Hou (Ed.). *A forum on Environmental Pollution for Chinese Youth Scholars*, Chinese Environmental Science Press, Beijing, 1996, pp. 364-367.

 Lin Zhang, Shugui Dai, Zhipeng Bai, and Guangliang Liu. (1996). Determination of PAHs in Typical Indoor Air Ambient. *In* Bingzheng Hou (Ed.). *A forum on Environmental Pollution for Chinese Youth Scholars*, Chinese Environmental Science Press, Beijing, 1996, pp. 632-635.

# **Refereed Journal Articles**

- Cui, W.B., Liu, G.L., Bezerra, M., Lagos, D.A., Li, Y.B., Cai, Y., 2017. Occurrence of Methylmercury in Rice-Based Infant Cereals and Estimation of Daily Dietary Intake of Methylmercury for Infants. J. Agric. Food Chem. 65, 9569-9578.
- Gonzalez-Raymat, H., Liu, G., Liriano, C., Li, Y., Yin, Y., Shi, J., Jiang, G., Cai, Y., 2017. Elemental mercury: Its unique properties affect its behavior and fate in the environment. Environmental Pollution 229, 69-86.
- 3. Dickson, D., Liu, G., Cai, Y., 2017. Adsorption kinetics and isotherms of arsenite and arsenate on hematite nanoparticles and aggregates. Journal of Environmental Management 186, Part 2, 261-267.
- Ji, F., Wang, C., Wang, H., Liu, G., Chen, B., Hu, L., Jiang, G., Song, M., Liang, Y., 2017. Tetrabromobisphenol A (TBBPA) exhibits specific antimicrobial activity against Gram-positive bacteria without detectable resistance. Chemical Communications 53, 3512-3515.
- 5. Liu, G., Cai, Y., Hernadez, D., Schrlau, J., Allen, M., 2016. Mobility and speciation of arsenic in the coal fly ashes collected from the Savannah River Site (SRS). Chemosphere 151, 138-144.
- 6. Stice, S., Liu, G., Matulis, S., Boise, L.H., Cai, Y., 2016. Determination of multiple human arsenic metabolites employing high performance liquid chromatography inductively coupled plasma mass spectrometry. Journal of Chromatography B 1009–1010, 55-65.
- Wang, Y.M., Liu, G.L., Wang, D.Y., Cai, Y., 2016. Refining mercury emission estimations to the atmosphere from iron and steel production. Journal of Environmental Sciences 43, 1-3.
- 8. Sun, Y., Liu, G., Cai, Y., 2016. Thiolated arsenicals in arsenic metabolism: Occurrence, formation, and biological implications. Journal of Environmental Sciences 49, 59-73.
- Jiang, P., Li, Y., Liu, G., Yang, G., Lagos, L., Yin, Y., Gu, B., Jiang, G., Cai, Y., 2016. Evaluating the role of re-adsorption of dissolved Hg2+ during cinnabar dissolution using isotope tracer technique. Journal of Hazardous Materials 317, 466-475.
- Wang, Y., Li, Y., Liu, G., Wang, D., Jiang, G., Cai, Y., 2015. Elemental Mercury in Natural Waters: Occurrence and Determination of Particulate Hg(0). Environmental Science & Technology 49, 9742-9749.
- 11. Yehiayan, L., Stice, S., Liu, G., Matulis, S., Boise, L.H., Cai, Y., 2014. Dimethylarsinothioyl Glutathione as a Metabolite in Human Multiple Myeloma Cell Lines upon Exposure to Darinaparsin. Chemical Research in Toxicology 27, 754-764.
- 12. Mondo, K., Broc Glover, W., Murch, S.J., Liu, G., Cai, Y., Davis, D.A., Mash, D.C., 2014. Environmental neurotoxins β-N-methylamino-I-alanine (BMAA) and mercury in shark

cartilage dietary supplements. Food and Chemical Toxicology 70, 26-32.

- 13. Liu, G., Cai, Y., 2013. Studying arsenite–humic acid complexation using size exclusion chromatography–inductively coupled plasma mass spectrometry. Journal of Hazardous Materials 262, 1223-1229.
- 14. Li, Y., Yin, Y., Liu, G., Tachiev, G., Roelant, D., Jiang, G., Cai, Y., 2012. Estimation of the Major Source and Sink of Methylmercury in the Florida Everglades. Environmental Science & Technology 46, 5885-5893.
- 15. Dickson, D., Liu, G., Li, C., Tachiev, G., Cai, Y., 2012. Dispersion and stability of bare hematite nanoparticles: Effect of dispersion tools, nanoparticle concentration, humic acid and ionic strength. Science of the Total Environment 419, 170-177.
- 16. Liu, G.L., Naja, G.M., Kalla, P., Scheidt, D., Gaiser, E., Cai, Y., 2011. Legacy and Fate of Mercury and Methylmercury in the Florida Everglades. Environmental Science & Technology 45, 496-501.
- 17. Liu, G., Fernandez, A., Cai, Y., 2011. Complexation of Arsenite with Humic Acid in the Presence of Ferric Iron. Environmental Science & Technology 45, 3210-3216.
- 18. Mao, Y.X., Yin, Y.G., Li, Y.B., Liu, G.L., Feng, X.B., Jiang, G.B., Cai, Y., 2010. Occurrence of monoethylmercury in the Florida Everglades: Identification and verification. Environmental Pollution 158, 3378-3384.
- 19. Liu, G.L., Cai, Y., 2010. Complexation of arsenite with dissolved organic matter Conditional distribution coefficients and apparent stability constants. Chemosphere 81, 890-896.
- 20. Li, Y.B., Mao, Y.X., Liu, G.L., Tachiev, G., Roelant, D., Feng, X.B., Cai, Y., 2010. Degradation of Methylmercury and Its Effects on Mercury Distribution and Cycling in the Florida Everglades. Environmental Science & Technology 44, 6661-6666.
- 21. Guangliang Liu, Yong Cai, Yuxiang Mao, Daniel Scheidt, Peter Kalla, Jennifer Richards, Leonard J. Scinto, Georgio Tachiev, David Roelant, and Charlie Appleby. (2009). Spatial Variability in Mercury Cycling and Relevant Biogeochemical Controls in the Florida Everglades. *Environmental Science & Technology*, 43, 4361-4366.
- Guangliang Liu, Yong Cai, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard J. Scinto, Evelyn Gaiser, and Charlie Appleby. (2008). Mercury mass budget estimates and cycling seasonality in the Florida everglades. *Environmental Science & Technology*, 42, 1954-1960.
- Guangliang Liu, Yong Cai, Thomas Philippi, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard Scinto, and Charlie Appleby. (2008). Distribution of total and methylmercury in different ecosystem compartments in the Everglades: Implications for mercury bioaccumulation. *Environmental Pollution*, 153, 257-265.
- 24. Guangliang Liu, Yun Qian, Shugui Dai, Nan Feng. (2008). Adsorption of microcystin LR and LW on suspended particulate matter (SPM) at different pH. *Water Air and Soil Pollution*, 192, 67-76.
- 25. Yuxiang Mao, Guangliang Liu, George Meichel, Yong Cai, Guibin Jiang. (2008). Simultaneous speciation of monomethylmercury and monoethylmercury by aqueous phenylation and purge-and-trap preconcentration followed by atomic spectrometry detection. *Analytical Chemistry*, 80, 7163-7168.
- 26. Zhangrong Chen, Yong Cai, Guangliang Liu, Helena Solo-Gabriele, George H. Snyder,

John L. Cisar. (2008). Role of soil-derived dissolved substances in arsenic transport and transformation in laboratory experiments. *Science of The Total Environment*, 406, 180-189.

- 27. Guangliang Liu, Julio Cabrera, Marshall Allen and Yong Cai. (2006). Mercury characterization in a soil sample collected nearby the DOE Oak Ridge Reservation utilizing sequential extraction and thermal desorption method. *Science of the Total Environment*, 369, 384-392.
- 28. Sun Hongwen, Xu Jian, Yang Songhua, Liu Guangliang and Dai Shugui. (2004). Plant uptake of aldicarb from contaminated soil and its enhanced degradation in the rhizosphere. *Chemosphere*, 54, 569-574.
- 29. Guangliang Liu, Shugui Dai, Yun Qian, and Quan Gan. (2003). Experimental Study On Effect Of Anion Surfactant On Degradation Rate Of Aldicarb In Soil. *Journal of Environmental Science and Health, Part B*, 38(4), 405-416.
- 30. Guolan Huang, Zhihui Song, Guangliang Liu and Weihua Zhang. (2002). Toxic Effect of Triphenyltin Chloride on *Spirulina suvsalsa*. *Applied Organometallic Chemistry*, 16, 117-122.
- Shu-Gui Dai, Guang-Liang Liu, Yun Qian and Xue-Kun Cheng. (2001). The Sorption Behavior of Complex Pollution System Composed of Aldicarb and Surfactant-SDBS. *Water Research*, 35(9), 2286-2290.
- 32. Shu-Gui Dai, Guang-Liang Liu and Quan-xi Liu. (2001). The Leaching Behavior of Aldicarb among Complex Pollution System Composed of Surfactant SDBS and Aldicarb, *Water, Air and Soil Pollution*, 131, 119-133.
- 33. Qian Yun, Dai Shugui, Liu Guangliang, Ge Weidong, and Zhuang Yuanyi. (2003). Effect of Lanthanum Nitrate on Growth Characteristics of *Microcystis aeruginosa*. *China Environmental Science*, 23(1), 7-11.
- 34. Xu Jian; Yang Xin; Dai Shugui; Liu Guangliang (2003). Sorption Behavior of Aldicarb on Suspended Particulate Matter in Water, *China Environmental Science*, 24, 87-91.
- 35. Guangliang Liu, Shugui Dai, Yuqiu Wang, Yun Qian, and Yubao Sun. (2002). Determination of aldicarb in environmental sample by capillary GC-FPD, *Environmental Chemistry*, 21(5), 17-18.
- 36. Qian Yun, Liu Guangliang and Dai Shugui. (2002). Terrestrial Invertebrate Biomarkers Used for Soil Ecotoxicological Risk Assessment. *Soil and Environmental Sciences*, 11(1), 70-74.
- 37. Qian Yun, Zhu Lin, Liu Guangliang and Dai Shugui. (2002). Inhibition of Four Pesticides on Acetylcholinesterase (AChE) Activity of Carp *Cyprinus carpio* Linnaeus Brain. *Shanghai Environmental Sciences*, No. 5.
- 38. Dai Shu-Gui, Sun Yu-Bao, Liu Guang-Liang and Xu Jian. (2002). Characterization of field soil ecosystem polluted by aldicarb. *Urban Environment and Urban Ecology*, 15(3), 1-4.
- 39. Dai Shu-gui, Xu Jian, Liu Guang-liang and Zhang Ting. (2002). Degradation of Aldicarb in Sweet Potato. *Agro-Environment Protection*, 21(3), 248-250.
- 40. Xu Jian, Dai Shugui and Liu Guangliang. (2002). Research Advances in Transport Models of Chemical Contaminants in Soil and Groundwater. *Soil and Environmental Sciences*, 11(3), 299-301.
- 41. Dai Shu-Gui, Cheng Xue-Kun, Liu Guang-Liang and Zhang Ting. (2002). The influences

of sodium dodecylbenzenesulfonate and humic acids on hydrolysis of aldicarb and its oxidation products. *China Environmental Science*, 22(3), 193-197.

- 42. Qian Yun, Dai Shugui and Liu Guangliang. (2002). Development of Studies on Microcystin in Eutrophicated Fresh Water Body. *Techniques and Equipment for Environmental Pollution Control*, 3(8), 13-17.
- 43. Dai Shugui, Liu Guangliang and Qian Yun. (2001). Development of Research on Soil Multimedia Environmental Pollution. *Soil and Environmental Sciences*, 10, 1-5.
- 44. Zhu Lin, Qian Yun and Liu Guangliang. (2001). Cytochrome P450 Enzyme Family and Its Application to Toxicology *Shanghai Environmental Sciences*, 20(2), 88-91.
- 45. Liu Guangliang, Dai Shugui and Qianyun. (2000). Study on Irreversible Sorption Behavior of Pesticide Aldicarb in Soil. *Acta Scientiae Circumstantiae*, 20(5), 597-602.
- 46. Qian Yun, Zhu Lin and Liu Guangliang. (2000). The Joint Toxic Effect of Pesticide Mixtures on Acetylcholinesterase (AChE) in carp (*Cyprinus carpio* Linnaeus) Brain. *Techniques and Equipment for Environmental Pollution Control*, 1(4), 427-432.

# PRESENTATIONS and INVITED TALKS

- Guangliang Liu, Wenbin Cui, Yong Cai. (2017). Methylmercury (MeHg) in Rice-based Infant Cereals. The 13th International Conference on Mercury as a Global Pollutant, Providence, Rhode Island, July 16–21, 2017.
- Guangliang Liu, Ping Jiang, Wenbin Cui, Peter Kalla, Dan Scheidt and Yong Cai. (2017). Distribution of Mercury Species in the Everglades: A Geochemical Perspective and Implications on Mercury Bioaccumulation. 2017 Greater Everglades Ecosystem Restoration (GEER) Conference, Coral Springs, FL, April 17-21, 2017.
- Guangliang Liu, Ping Jiang, Sen Chen, Yong Cai. (2016). Interaction of Mercury with Thiols: Complexation and Enhanced Dissolution of Mercury Sulfide. Society of Environmental Toxicology and Chemistry 7th SETAC World Congress and North America 37th Annual Meeting, Orlando, Florida, November 6-10, 2016.
- 4. Guangliang Liu, Yong Cai, Ping Jiang, Wenbin Cui, Peter Kalla, Daniel Scheidt. (2015). Distribution Of Mercury In Ecosystem Components In The Everglades: A Mass Budget Perspective. 2017 Greater Everglades Ecosystem Restoration (GEER) Conference, Coral Springs, FL, April 21-23, 2015.
- 5. Guangliang Liu, Aymara Fernandez, Yong Cai. (2013). Complexation of arsenic species with dissolved organic matter (DOM). The 12th International Conference on the Biogeochemistry of Trace Elements (ICOBTE), Athens, Georgia, USA, June 16-20, 2013.
- Guangliang Liu, Guidi Yang, Yanbin Li, Sen Chen, Yong Cai, Georgio Tachiev, Leonel Lagos. (2013). Dissolution of Mercury Sulfide in the Presence of Thiol-containing Substances. The 11th International Conference on Mercury as a Global Pollutant (ICMGP), Edinburgh, United Kingdom, July 25 - August 2, 2013.
- Guangliang Liu, Aymara Fernandez, Yong Cai. (2012). Analytical studies on complexation of arsenic with dissolved organic matter. The 9th International Symposium on Persistent Toxic Substances (ISPTS), Miami, Florida, USA, October 23-27, 2012.
- Guangliang Liu, Sen Chen, G. Melodie Naja, Yong Cai, Georgio Tachiev, David Roelant. (2011). Effects of Low Molecular Weight Thiols and Humic Acid on Mercury Sulfide Dissolution. The 10th International Conference on Mercury as a Global Pollutant (ICMGP),

Halifax, Nova Scotia, Canada, July 24-29, 2013.

- 9. Yong Cai, Guangliang Liu, G. Melodie Naja, Peter Kalla, Dan Scheidt, Georgio Tachiev, David Roelant. (2011). Mass Inventory of Total and Methyl Mercury in the Florida Everglades. The 10th International Conference on Mercury as a Global Pollutant (ICMGP), Halifax, Nova Scotia, Canada, July 24-29, 2013.
- 10. Guangliang Liu, G. Melodie Naja, Yong Cai, Peter Kalla, Dan Scheidt, Evelyn Gaiser, Georgio Tachiev, David Roelant. (2010). Mass Distribution of Mercury among Ecosystem Components in the Florida Everglades. 2010 Greater Everglades Ecosystem Restoration (GEER) Conference, Naples, FL, July 13-16, 2010.
- 11. Yong Cai, Guangliang Liu, G. Melodie Naja, Rosanna Rivero, Peter Kalla, Dan Scheidt, Georgio Tachiev, David Roelant. (2010). Fate of Seasonally Deposited Mercury in the Florida Everglades. 2010 Greater Everglades Ecosystem Restoration (GEER) Conference, Naples, FL, July 13-16, 2010.
- 12. Guangliang Liu, Yong Cai, Aymara Fernandez. (2010). Iron-bridged complexation of arsenite with dissolved organic matter. The 239th American Chemical Society (ACS) National Meeting, San Francisco, California, March 21-25, 2010.
- Dionne Dickson, Yong Cai, Guangliang Liu (2010). Dispersion method to prepare stable iron oxide nanoparticle suspension. The 239th American Chemical Society (ACS) National Meeting, San Francisco, California, March 21-25, 2010.
- 14. Guangliang Liu, Yong Cai, G. Melodie Naja, Rosanna Rivero, Peter Kalla, Dan Scheidt. (2009). Mass Budget Estimation for Seasonally Deposited Mercury in Different Regions of the Florida Everglades. The Society of Environmental Toxicology and Chemistry (SETAC) North America 30th Annual Meeting, New Orleans, LA, 19-23 November 2009.
- Guangliang Liu, Yong Cai, Peter Kalla, Dan Scheidt, Georgio Tachiev, David Roelant. (2009). Temporal Characteristics of Mercury Contamination in the Everglades from 1995 to 2005. The Society of Environmental Toxicology and Chemistry (SETAC) North America 30th Annual Meeting, New Orleans, LA, 19-23 November 2009.
- 16. Guangliang Liu, Yong Cai, Yuxiang Mao, Daniel Scheidt, Peter Kalla, Georgio Tachiev, and David Roelant. (2009). Biogeochemical controls on mercury distribution and bioaccumulation in the Florida Everglades. The 238th American Chemical Society (ACS) National Meeting, Washington, DC, August 16-20 2009.
- 17. Guangliang Liu, Yong Cai, Yuxiang Mao, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard J. Scinto. (2009). Seasonality in Mercury Cycling in a Subtropical Wetland Ecosystem. The 9th International Conference on Mercury as a Global Pollutant, Guiyang, China, June 7-12 2009.
- 18. Guangliang Liu, Yong Cai, Yuxiang Mao, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard J. Scinto. (2009). Mercury Compartmentalization in the Florida Everglades, USA. The 9th International Conference on Mercury as a Global Pollutant, Guiyang, China, June 7-12 2009.
- Peter Kalla, Curtis Pollman, Daniel Scheidt, Yong Cai, Guangliang Liu, Xiaoping Yin. (2009). Mercury in the Greater Everglades of Florida, USA: Changing and Optimality of Bio-accumulation over Space and Time. The 9th International Conference on Mercury as a Global Pollutant, Guiyang, China, June 7-12 2009.

- 20. Guangliang Liu, Yanbin Li, Yong Cai, Georgio Tachiev, David Roelant. (2009). Comparative Studies on Diverse Response of Fish Mercury to Mercury Loading in EFPC and in the Everglades. Integrated Facility Disposition Program (IFDP) Critical Decision (CD) 2/3 Near-Term Baseline Mercury and Other Technology Development Activities Oak Ridge Meeting (DOE-HQ EM-22/DOE-OR), Oak Ridge, TN, June 4 2009.
- 21. David Roelant, Guangliang Liu, Georgio Tachiev. (2009). Remediation and Treatment Technology Development and Support for DOE/ORR. Integrated Facility Disposition Program (IFDP) Critical Decision (CD) 2/3 Near-Term Baseline Mercury and Other Technology Development Activities Oak Ridge Meeting (DOE-HQ EM-22/DOE-OR), Oak Ridge, TN, June 4 2009.
- 22. Guangliang Liu, Yong Cai, Peter Kalla, Dan Scheidt. (2008). Spatial Variation in Mercury Distribution and Bioaccumulation in the Florida Everglades. The Society of Environmental Toxicology and Chemistry (SETAC) North America 29th Annual Meeting, Tampa, FL, 16-20 November 2008.
- 23. Yuxiang Mao, Guangliang Liu, Yong Cai. (2008). Detection of mono ethylmercury in the soil/sediment samples of the Florida Everglades and a Canadian wetland and investigation of its origin using stable isotope tracer technique. The Society of Environmental Toxicology and Chemistry (SETAC) North America 29th Annual Meeting, Tampa, FL, 16-20 November 2008.
- 24. Guangliang Liu, Yong Cai, Peter Kalla, Dan Scheidt. (2008). Temporal and Spatial Characteristics of Mercury Contamination in the Everglades during the Past Three R-EMAP Phases. 2008 Greater Everglades Ecosystem Restoration (GEER) Conference, Naples, FL, July 28-August 1, 2008.
- 25. Guangliang Liu, Aymara Fernandez, Yong Cai. (2008). Size Exclusion Chromatography Hyphenated with UV spectrophotometer and Inductively Coupled Plasma Mass Spectrometry for Arsenic Speciation. American Chemical Society Florida Section 84th Annual Meeting and Exposition (FAME), Orlando, FL, May 8-10, 2008.
- 26. Yuxiang Mao, Guangliang Liu, Yong Cai. (2008). Development and application of a capillary gas chromatography-inductively coupled plasma mass spectrometry method for Hg isotope ratio analysis using aqueous phenylation and purge and trap preconcentration. American Chemical Society Florida Section 84th Annual Meeting and Exposition (FAME), Orlando, FL, May 8-10, 2008.
- **27.** Guangliang Liu, Aymara Fernandez, Yong Cai. (2008). Complexation of Arsenite with Dissolved Organic Matter in the Absence and Presence of Natural Sand. The 235th American Chemical Society (ACS) National Meeting, New Orleans, LA, April 6-10 2008.
- 28. Yong Cai, Guangliang Liu. (2008). Arsenic speciation analysis and its importance in understanding arsenic biogeochemistry. The 235th American Chemical Society (ACS) National Meeting, New Orleans, LA, April 6-10 2008.
- **29.** Guangliang Liu. (2008). Source and fate of arsenic in the environment. Seminar at Tropical Research and Education Center (TREC), University of Florida, Homestead, FL, March 20 2008.
- 30. Guangliang Liu, Yong Cai, Peter Kalla, Daniel Scheidt, Thomas Philippi, Jennifer

Richards, Leonard Scinto, and Charlie Appleby. (2007). Seasonality in mercury cycling and bioaccumulation in the Florida Everglades. The Society of Environmental Toxicology and Chemistry (SETAC) North America 28th Annual Meeting, Milwaukee, WI, 11-15 November 2007.

- **31.** Yong Cai, Guangliang Liu, Peter Kalla, Daniel Scheidt, Thomas Philippi, Jennifer Richards, Leonard Scinto and Charlie Appleby. (2007). Spatial variation in mercury distribution and biogeochemical cycling in the Florida Everglades. The Society of Environmental Toxicology and Chemistry (SETAC) North America 28th Annual Meeting, Milwaukee, WI, 11-15 November 2007.
- 32. Guangliang Liu, Yong Cai, Thomas Philippi, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard Scinto, Charlie Appleby. (2007). Mercury species distribution in different ecosystem compartments and implications for bioaccumulation in the Everglades. 9th International Conference on the Biogeochemistry of Trace Elements (ICOBTE), Beijing, China, July 15-19.
- 33. Guangliang Liu, Yong Cai, Thomas Philippi, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard Scinto, and Charlie Appleby. (2007). Distribution of Total and Methyl Mercury in Different Ecosystem Compartments in the Everglades: Implications for Mercury Bioaccumulation. 90th Canadian Chemistry Conference and Exhibition, Winnipeg, Canada, May 26-30, 2007.
- 34. Yuxiang Mao, Guangliang Liu, George Meichel and Yong Cai (2007). Development and Optimization of a GC-ICPMS Hyphenated Technique for Organomercury Speciation Analysis Using Aqueous Phase Phenylation Derivatization and Purge/Trap Preconcentration. American Chemical Society Florida Section 83<sup>rd</sup> Annual Meeting and Exposition, Orlando, FL, May 10-12, 2007.
- 35. Guangliang Liu, Sandra Zapata, Marshall Allen and Yong Cai. (2006). Evaluation of methylmercury mobility in the everglades soil by sequential extraction procedure. SETAC North America 27th Annual Meeting, Montreal, Canada, November 5-9, 2006.
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